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United States Patent [19]**Kinders et al.**[11] **Patent Number:** **6,017,703**[45] **Date of Patent:** **Jan. 25, 2000**[54] **METHODS AND COMPOSITIONS FOR SCREENING FOR OR MODULATING A TUMOR ASSOCIATED ANTIGEN**[75] Inventors: **Robert J. Kinders**, Woodinville; **David L. Enfield**, Bothell; **G. Michael Hass**, Issaquah, all of Wash.[73] Assignee: **Bard Diagnostic Sciences, Inc.**, Redmond, Wash.[21] Appl. No.: **08/824,692**[22] Filed: **Apr. 8, 1997****Related U.S. Application Data**

[60] Provisional application No. 60/015,083, Apr. 9, 1996, and provisional application No. 60/038,614, Mar. 6, 1997.

[51] **Int. Cl.⁷** **G01N 33/574**; C12Q 1/68[52] **U.S. Cl.** **435/6**; 435/7.23; 436/63; 436/64; 436/813[58] **Field of Search** 435/6, 7.23; 436/63, 436/64, 813[56] **References Cited****FOREIGN PATENT DOCUMENTS**

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Methods of screening for or treating cancer are disclosed. The screening methods are based on the detection of an antigen, or a nucleic acid molecule encoding the antigen, found by the present invention to be associated with the presence of cancer. Preferred embodiments of the methods include detection of the antigen based on immunological properties, physical properties, enzymatic properties and combinations thereof, or detection of a nucleic acid molecule encoding the antigen based on nucleic acid amplification.

9 Claims, 15 Drawing Sheets